



Does the initial antibiotic choice affect the incidence of post-operative collections in paediatric appendicitis?

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INTRODUCTION

- ❖ The initial choice of antibiotics in appendicitis depends on local antimicrobial guidelines.
- ❖ In our tertiary paediatric surgery unit, antimicrobial guidelines were changed in September 2022 to recommend Co-Amoxiclav instead of Cefuroxime and Metronidazole.
- ❖ This study compares incidence of post-operative collections before and after the policy change.

METHOD

- ❖ Patients who underwent appendicectomy between September 2021 and October 2023 (26 months) were identified and contemporaneous data collected.
- ❖ Comparison was made between the two treatment groups.

Group 1 – Patients on Cefuroxime + Metronidazole

Group 2 – Patients on Co-Amoxiclav

Exclusions: initial surgery elsewhere, interval/incidental appendicectomies and patients allergic to penicillin.

A change in antimicrobial policy resulted in a tripling of the incidence of paediatric post-appendicectomy collections



Figure 1: Comparison of post-op collections

Interventions	Antibiotics	IR Drain	Surgery	Total
Group 1	1	2	1	4
Group 2	7	5	1	13

Table 1: Comparison of interventions

RESULTS

- ❖ Group 1 – 104 patients (after excluding 47)
- ❖ Group 2 – 104 patients (after excluding 46)
- ❖ Collections: 3.8% in Group 1 compared to 12.5% in Group 2 (**Figure 1**).
- ❖ Severity: 51% of patients in Group 1 had complicated appendicitis compared to 56% in Group 2 (p=0.58).
- ❖ There was no significant difference in the mean age and gender in both groups. (Age p=0.77; gender p=0.88).
- ❖ The relative risk of developing a post-operative collection was 3.3 (p=0.023) in Group 2 versus Group 1.

CONCLUSION

The change from Cefuroxime and Metronidazole to Co-Amoxiclav resulted in a significant increase in post-operative collections. This study emphasises the importance of auditing outcomes after any change in practice.